Synopsis (as per clause 5 of the ordinance-45)

1. Title of thesis :

"Functional Analysis of Chhattisgarh State Renewable Energy Development Agency (CREDA)-With Special Impact on its Financial Management."

2. Introduction :

The Chhattisgarh State was carved form erstwhile Madhya Pradesh on 1.11.2000 as the 26th State of the Union of India. Chhattisgarh is the 9th largest state in area of 1, 35,000 Sq. Km. with about 44% forest cover. Population of the state is 2.55 Crores (16th in India) and the appropriate population density is 190 per Sq. Km.

About CREDA :

CREDA has been constituted on 25th May 2001 under the Department of Energy, Government of Chhattisgarh for implementation of various Schemes pertaining to Renewable Energy Sources and Energy Conservation activities. It is registered under Society Act 1973 with the controlling body being Ministry of Energy, Govt. of Chhattisgarh headed by Hon'ble Chief Minister Chhattisgarh as chairman and Principal Secretary (Energy) as Chief Executive Officer.

Since its establishment, CREDA did extensive work in the field of Renewable Energy focusing on rural areas and stand alone devices. It has implemented Project in the field of power generation from

renewable energy environmental friendly Sources, effectively in urban areas also.

CREDA has positioned itself as an organisation with enough financial and human capabilities having a professional organizational structure. Analysing all attributes of CREDA with specific objective to conclude shall be the aim of my research.\

3. A brief review of the work already done in the field :

In the year 2011,Markus Millinger and Tina Marlind ,from Department of Energy and Environment, Chalmers University of Technology, Goteborg, Sweden, did a case study in Chhattisgarh, India and attempted to interrogate about What defines "success" of electrification according to United Nations, the World Bank and Indian Governmental Electrification Policy and What factors have affected the success of CREDA's electrification by solar power of remote villages? The methods of survey, data collection and analysis were used by them. The results of their study concludes that CREDA succeeded in establishing the Power generation and distribution system through Solar energy in remote villages, but the systems are not economically self-sufficient. The World Bank factors are largely not satisfied but the Indian Governmental Electrification Policy along with environmental dimensions are satisfied to some extent.

4. **Objective :**

The Objectives of my research can be summarised as follows :

A. To find the impact of CREDA on Socio-economic benefit of CG state, through its devices and applications for power generation with renewable energy source.

B. To analyse the Finance management of CREDA and access its growth rate till 2012.

C. To make Comparative analysis of Power generation through Renewable Energy Source in Chhattisgarh with other States.

D. To know the Contribution of CREDA in total power generating activities of the state, through non-conventional energy resources.

E. To make analysis of the cost factor of after Sales services of CREDA to visualise its impact on financial management.

5. Noteworthy Contribution in the field of proposed work :

1. "Factors influencing the success of decentralised Solar Power System in remote villages."-A case study in chhattisgarh, India. (Master of Science Thesis in the Master degree Programme Industrial Ecology), MARKUS MILLINGER and TINA MARLIN, Department of Energy and Environment, CHALMERS UNIVERSITY OF TECHNOLOGY Goteborg, Sweden (2011).
2. "Rural Electrification in the developing world" Barnes D. and Foley G. (2004) UNDP/ESMAP Washington D. C.
3. "A comparative evolution of household preferences for solar photovoltaic Standalone and mini-grid system: An empirical study in a coastal village of Indian Sunderban." Bhandari A. K. and Juna C. (2010)

4. "Renewable energy in India : Historical development and Prospects" Bhattacharya S. an Jana C.

5. "Towards building Solar India". Govt. of India Jawaharlal Nehru National Solar Mission (2008).

6. "Supply installation and commissioning of solar Photovoltaic home lighting system, street lighting system & LED based solar lantern." (2010) CREDA, Raipur, Chhattisgarh.

7. "Chhattisgarh A Booming" Presentation by Sanjeev Jain (2012) Chief Engineer, CREDA, Raipur (C.G.).

8. "Sensitivity of Solar Power Plant" Rajeev Gyani, Executive Engineer CREDA, Raipur (C.G.)

9. "Why Solar Now?" Rajeev Gyani, Executive Engineer CREDA, Raipur (C.G.).

10. "Rural Electrification Systems based on renewable energy: The Social dimensions of an innovative technology." Garcia V. G. and Bartolome M. M. Technology in Society (2010)

6. Proposed Methodology :

Research methodology is a way to systematically solve the research problem. In other words, all those methods which are used by the researcher during the course of studying his research problem are termed as research methods.

In case of my research on the topic "Function Analysis of CREDA – With Special impact on its Financial and Personal Management", it would be defined as

"Analytical research", Where I would be using the facts, figures and information's already available, and analyse them to make a critical evalution of the material. My research methodology is totally based upon "**secondary data** "Collection and analysis. The period of study is from 2001 to 2012.

The testing of hypothesis will be conducted by using various statistical tools such as averages, relevant percentages and ratio analysis. Correlation, regression and trends in time series will be applied for analysis, wherever necessary. The comparisons would be presented in forms of graphical presentations and diagrams.

7. Expected outcome of the proposed work :

(HYPOTHESIS)

1. CREDA immensely contributes in socio- economic development of the state through its various services, reduces the burden of power generation through conventional resources and also contributes in conservation of depleting resources by environment friendly technologies for power generation.

2. The financial assistance provided by the state strengthens the capital structure of CREDA.

3. Growth rate of CREDA and its contribution in Chhattisgarh state is highly significant in comparison to other state regarding power generation through RE source.

3. Cost of power generation and distribution through NCE will be higher than CE resources.

4. The after sales services has an significant impact on finance management of CREDA.

Chapterisation of the proposed works

Chapter One: Preface and preamble

- Beginning of the research
- Research methodology.
- Chhattisgarh state
- Resources of power generation.
- Power requirement in-rural and urban division of chhattisgarh.
- Power generation activities in C.G State.

Chapter Two: Conventional sources of power generation in chhattisgarh

- NTPC
- Other power plants.
- Total power generational through CER.

Chapter three: Power generation through non-conventional sources.

- Non-conventional sources
- Contribution of various states in power generational through NCS.

- Contribution of CG in power generational through NCS.

Chapter four: Chhattisgarh state renewable energy development agency (CREDA)

- About CREDA
- Policies and programmes.
- Objectives and mission.
- Major projects

Chapter Five: Contribution of CREDA in socio-economic development.

- Various project of CREDA.
- Analysis of social benefit of projects.
- Analysis of economic benefit of projects.
- Conclusion.

Chapter Six: Financial management in CREDA

- Capital Structure
- Revenue resources.
- Financial assistance through Govt.
- Analysis of financial statement.
- Financial strength of CREDA
- Conclusion.

Chapter Seven: Growth analysis of CREDA

- Growth in power generation.

- Growth in revenue.
- Changes in state financial assistance.
- Changes in capital structure.
- Comparative analysis of growth rate of CREDA with other NCE sources of power generation agencies.

Chapter Eight: Cost Analysis of power generation

- Cost factor of CES of power generation and distribution.
- Cost factor of NCES of power generation and distribution.
- Cost of repair & maintenances as after sales services of CES and NCES.
- Overall cost analysis.
- Conclusion.

Chapter Nine: Hypothesis testing

Chapter Ten: conclusion and Recommendations

8. Bibliography:

1. www.credacg.org (Official website of CREDA)
2. WWW chhattisgarh.nic.in (Official. website of Govt. Of Chhattisgarh)

3. Research Methodology, C.R.Kothari, New Age International Publisher,

4. Personal Communication with Mr.Rajiv Gyani and Mr. Natekar at CREDA,HO , Raipur(C.G.)

9. List of Research Paper Published :

Research Paper published in Journals :

1* International journal

1. **Research article :** Microfinance –A tool for women empowerment and poverty alleviation.

   Published in : Research digest (A Registered &referred international research journal) ISSN-0973-6387, July-Sep & Oct-Dec 2012.

2. **Research article :** Role of communication in corporate

   Published in : Lab to Land (A Registered & referred International research journal) ISSN-0975-282x, Vol –VI, No.15, july-sep 2012

2* National Journal

1. **Research Article :** Changing pattern of India's foreign trade as a result of privatization and globalization.

   Published in : Research link (A National registered research journal) ISSN-0973-1628, Issue -29, vol-v, June-Aug 2006.

2. **Research article:** Migration from rural to urban areas: (Promoting livelihood but creating identity less citizens in chhattisgarh)

   Published in : **Chhattisgarh vivek** (A National registered Research journal).

Research paper published in seminar/conference :

- Pattern of migration in chhattisgarh-2011.
- Changing patterns of India foreign Trade-2006.

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